

NOMENCLATURE OF THE OCHROSIINÆ (APOCYNACEÆ) :

1. APPLICATION OF THE NAMES NEISOSPERMA RAF. AND CALPICARPUM G. DON

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ABSTRACT: *Calpicarpum* G. Don initially comprised two species; A. DE CANDOLLE restricted it to only one and reduced it to *Kopsia*; this overlooked fact prevents the use of *Calpicarpum* for the second species, for which *Neisosperma* Raf. is available.

RÉSUMÉ : *Calpicarpum* G. Don, originalement décrit avec deux espèces, a vu son sens restreint par A. DE CANDOLLE à une seule, classée par lui dans *Kopsia*; ceci empêche la réutilisation de *Calpicarpum* pour la seconde espèce, à laquelle le nom générique *Neisosperma* Raf. convient.

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In the course of studies to determine the identities of several species ascribed to the genus *Ochrosia* Juss. and collected on various Pacific Islands, it became evident that several earlier workers (HASSKARL, 1855, KOJIZUMI, 1923, MARKGRAF, 1927) who had concluded that this genus should be divided into two were correct. It was also evident that two of them had applied the name *Ochrosia* to the portion that did not contain the type, *Ochrosia borbonica* Gmel., and had created superfluous names for this element, e.g. *Bleekeria* Hasskarl 1855, and *Excavatia* Markgraf 1927. KOJIZUMI used *Lactaria* Rumphius for what the others called *Ochrosia*. It was necessary to restore the name *Ochrosia* Juss. to the portion containing the type and to find an available name for what had been called *Ochrosia* by the above authors. This was discussed briefly (FOSBERG & SACHET, 1974) and the name *Neisosperma* (= *Neisosperma*) Raf. was selected from two names simultaneously published by RAFINESQUE in 1838, both applying to this concept.

While this discussion was still in press a paper appeared by BOJTEAU & al. (1974), followed by another (1975), on the same subject, arriving at the same conclusions as to the existence of two genera, but applying the name *Calpicarpum* G. Don (1837) to the group which we had called *Neisosperma* (= *Neisosperma*) Raf. (1838). The taxonomic and morphologic work in these papers seems very carefully done and satisfactory, so we were inclined to follow them. However, before annotating material using

Calpicarpum, it seemed advisable to check the typification and applicability of this name.

The protologue of *Calpicarpum* consists of the description and two species, *C. roxburghii* G. Don [nom. illegit. superfl. \equiv *Cerbera fruticosa* Roxb. 1819] and *C. lamarkii* G. Don [nom. illegit. \equiv *Cerbera oppositifolia* Lam. 1783].

The first of these is strictly based on and typified by *Cerbera fruticosa* Roxb. = *Kopsia fruticosa* (Roxb.) A. DC.

The second must be typified by *Cerbera oppositifolia* Lam. 1783, cited in synonymy of and rendering *C. lamarkii* superfluous. Two other names, "*Lactaria salubris* Rumph. Amb. 2, p. 255, t. 84" [1741], and "*Cerbera salubris* Lour. Coch." [1790] are also cited in synonymy.

Alphonse DE CANDOLLE, Prodr. 8 (1844, pp. 351-352), reduced *Calpicarpum* to *Kopsia* Bl. 1826?, and, p. 352, specifically excluded "*C. lamarkii* Don = *Cerbera? oppositifolia*".

This amounts to a lectotypification of *Calpicarpum* by exclusion, and, according to Art. 8 of the Code (STAFLEU & al., 1972), this typification cannot be overturned unless it can be shown that it is at variance with the description.

To decide if DE CANDOLLE's selection of *Kopsia fruticosa* is in any way contrary to DON's description, the latter is repeated here with the one of the two genera in the protologue that fits each set of features of the description inserted in square brackets:

CALPICARPUM G. Don, Gen. Syst. 4 : 100 (1837).

Calyx 5-cleft, segments lanceolate, permanent, each ending in a gland [*Kopsia*]; corolla funnel-shaped, with a slender tube, swelling at throat, throat highly colored and hairy, but neither furnished with teeth nor scales [*Kopsia*]; Segments of limb obovate, oblong, equal-sized [*Kopsia*]. Stamens 5, inserted round the bottom of the swelled part of the tube; anthers sagittate, inclosed [either]. Ovaria twin, 2-celled [both], on the sides where they meet there is a small subulate scale covering the fissure [*Kopsia?*] cells 1-ovulate [neither]. Ovula attached to middle of partition [*Kopsia*], stigma large, with 2-lobed apex [*Kopsia*]. Drupe, or rather capsule, usually solitary, oblique, urn-shaped, villous, with a slit down the middle, semi-bivalved, 1-celled, opening up the inside and along the apex [*Kopsia*]; pulp hardly any, the whole substance being thin and rather fibrous [*Kopsia*]. Seeds solitary ovate-oblong, integument simple, white, pretty thick and soft [neither?]. Albumen none [neither]. Embryo erect, with pale yellow cotyledons conforming to the seed, and an ovate superior radicle [*Kopsia*]. Glabrous shrubs with dichotomous branches, broad opposite, lanceolate leaves, and terminal corymbs of red flowers [*Kopsia*].

Thus the description almost entirely applies to *Kopsia*, so the *Kopsia* element of the protologue, *C. roxburghii* = *Kopsia fruticosa*, must be retained as lectotype.

Unfortunately, in their otherwise very careful and satisfactory study

differentiating the two components often included in the genus *Ochrosia* Juss., P. BOITEAU and his colleagues (1974, 1975) ignored DE CANDOLLE'S correct disposition of *Calpicarpum* and applied this name to the component they were segregating from *Ochrosia*, exemplified by the plant specifically excluded by DE CANDOLLE, called by him *Cerbera oppositifolia*, more recently generally called *Ochrosia oppositifolia* (Lam.) K. Schum. They created for this the combination *Calpicarpum oppositifolium* (Lam.) Boiteau, since the name used for it by DON, *Calpicarpum lamarkii* G. Don, is superfluous and therefore illegitimate.

Fortunately the name *Neisosperma* Raf. applies without obstacle to the same concept to which *Calpicarpum* was incorrectly assigned by BOITEAU. This name was selected, from two simultaneously published Rafinesquian names for the group, by FOSBERG & SACHET (1972) and this application was discussed at greater length by them subsequently (1974).

There seems no doubt that this name of RAFINESQUE, typified by the widespread strand species now correctly called *Neisosperma oppositifolia* (Lamarck) Fosberg & Sachet, must replace *Calpicarpum* G. Don *emend.* Boiteau for the half-dozen New Caledonian species placed in it by BOITEAU as well as for perhaps 13 or 14 other Indo-Pacific species scattered from the Seychelles to the Marquesas islands.

Beginning with HOOKER & JACKSON, *Index Kewensis* 2 : 301, 1895, there has been an unfortunate confusion in the spelling of *Neisosperma*. *Index Kewensis* spelled it *Neiosperma*, which spelling was adopted by PICHON (1947), by MERRILL (1949), by us (1972 and 1974), and by BOITEAU (1974). In our own case, we can only suppose that we were so hypnotized by the MERRILL and *Index Kewensis* usages that when we checked RAFINESQUE'S original publication we read *Neiosperma* with the correct *Neisosperma* in front of our eyes. We regret the numerous annotations on herbarium sheets where we have used the wrong spelling. We thank Miss Toini SCHERR, Dr. Lily M. PERRY and Dr. Norton T. MILLER for detecting and calling our attention to our error.

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